SCALE MASTER® II

PC Interface

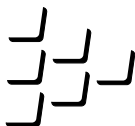## INSTALLATION

& USER'S GUIDE

CALCULATED INDUSTRIES®

INTRODUCTION

The *Scale Master® II* PC Interface Kit lets you to transfer values from your *Scale Master® II (SMII)* digital plan measure directly to your favorite application program (e.g., Excel spreadsheet or estimating software) program. This saves you time while reducing costly estimating errors!

KIT INCLUDES: interface cable and software

REQUIREMENTS:

- PC or compatible with CD-ROM drive
- Windows 3.x1/95/98/NT/2000, or DOS
- One 9-pin serial port*
- Windows: 1.6MB RAM for installation; 40K for software operation
- DOS: 170K RAM for installation; 2K for software operation

The Scale Master® II PC Interface is not compatible with USB.

TABLE OF CONTENTS

STEP 1 — CONNECTING THE *SCALE MASTER*® *II* TO YOUR PC

Follow the instructions below to connect your *Scale Master*® *II (SMII)* digital plan measure to your PC:

1. Turn your computer off. Plug the 9-pin side of the black interface cable (included in your kit) into the serial port on the back of your computer's hard drive. Tighten the screws. If necessary, attach an adapter.*

2. Plug the other end of the cable into the *Scale Master*® *II* and switch the *SMII* on (the On/Off switch is located above the cable). If the *SMII* display does not show zero (0), press the red **[RESET]** key to clear the display.

3. Proceed to **Step 2** to install the PC interface Interface program.

*NOTE: Serial ports are either 9-pin or 25-pin. The *SMII* requires a 9-pin port on your PC. *If your computer has a 25-pin port, you must use a Comm port adapter (available at most stores carrying computer products).*

RE: Cable Length

The interface cable measures 10 feet (3.0 meters). You may attach a standard serial cable to lengthen the connection, if desired.

STEP 2 — INSTALLING THE PC INTERFACE SOFTWARE

The next step is installing the PC interface Interface software program to your computer's hard drive. Please follow the instructions below for Windows 95/98, Windows NT/2000, or the following pages for Windows 3.1 or DOS.

Windows (95/98/NT/2000) Installation

1. Turn your computer on. Insert the compact disc (included in your kit) into your PC's CD-ROM drive.

2. If your CD Drive is configured for Autostart, you will see the startup menu. If this is the case, skip to Step 4.

3. Select **Run** from the Start menu and click **Browse**. Browse to Setup.exe on the CD drive and double-click on the Setup icon. Click **OK**.

(continued)

Programs	▶
Favorites	▶
Documents	▶
Settings	▶
Find	▶
Help	
Run...	

Browse   ? ✕

Look in: 000131_1022 (D:)

- dos
- win31
- Setup.exe

File name: **Open**

Files of type: Programs   Cancel
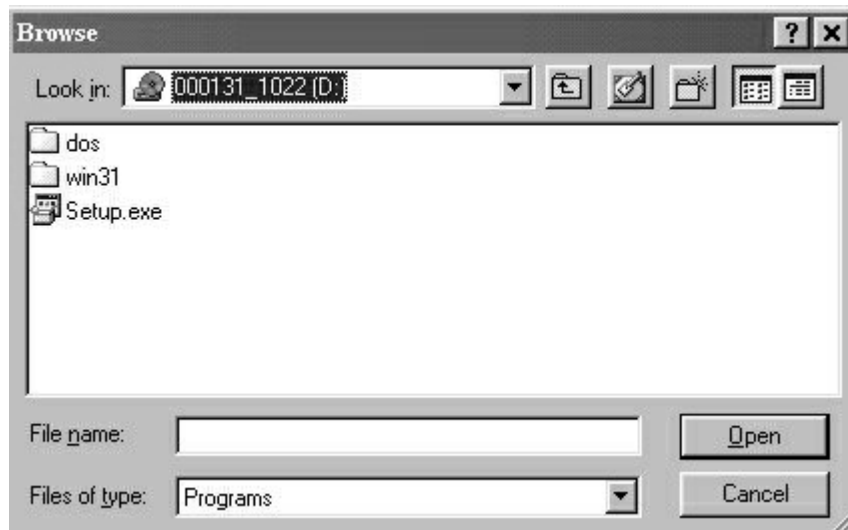
(continued)

4. A small menu will pop up which says, "This will install SM2 Connect. Do you wish to continue?" Click **Yes**. The program will self-extract.
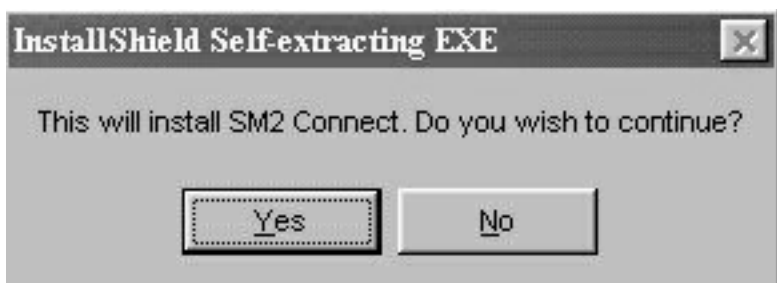
(continued)

5. A startup menu *("Welcome/Congratulations")* will appear. You are ready to begin installation to your computer's hard drive. Click on the **Next** button to begin. Follow the instructions and continue selecting **Next** until installation is complete.
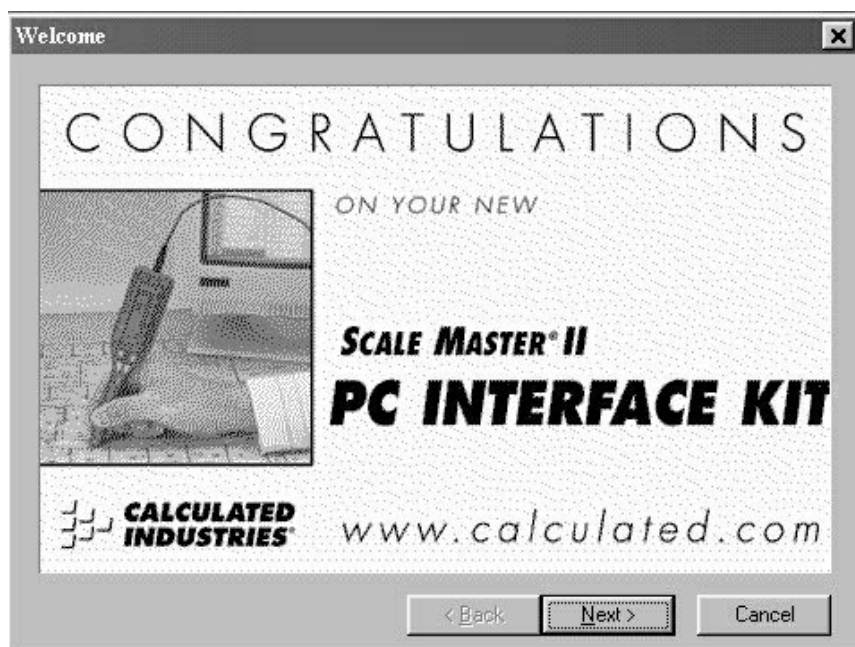
(continued)

6. When installation is complete, the final menu will read **Setup Complete**. To start the interface program immediately, click on the box that reads, "**Yes, Launch the program file**." Then, click on the **Finish** button. A "**SM2 Connect Driver Is Active**" prompt will then appear. Click **OK**. This will bring up the **Configuration Menu**. *(See the Menu on the next page.)*

(continued)

CONFIGURATION MENU SETTINGS

SM2 Connect	_ □ ✕

Disable About

Comm Port
- ⦿ Port 1
- ○ Port 2
- ○ Port 3
- ○ Port 4

Initial Conditions
- ☐ Skip Configuration Menu
- ☐ Start with Windows
- ☐ Beep on Data
- ☐ Use PC Speaker
- ☒ Connect Message

Terminating Sequence
- ○ None
- ⦿ Enter
- ○ Right Arrow
- ○ Down Arrow
- ○ Down Arrow (BidMan Only)
- ○ Tab
- ○ Custom

[OK]   [Cancel]
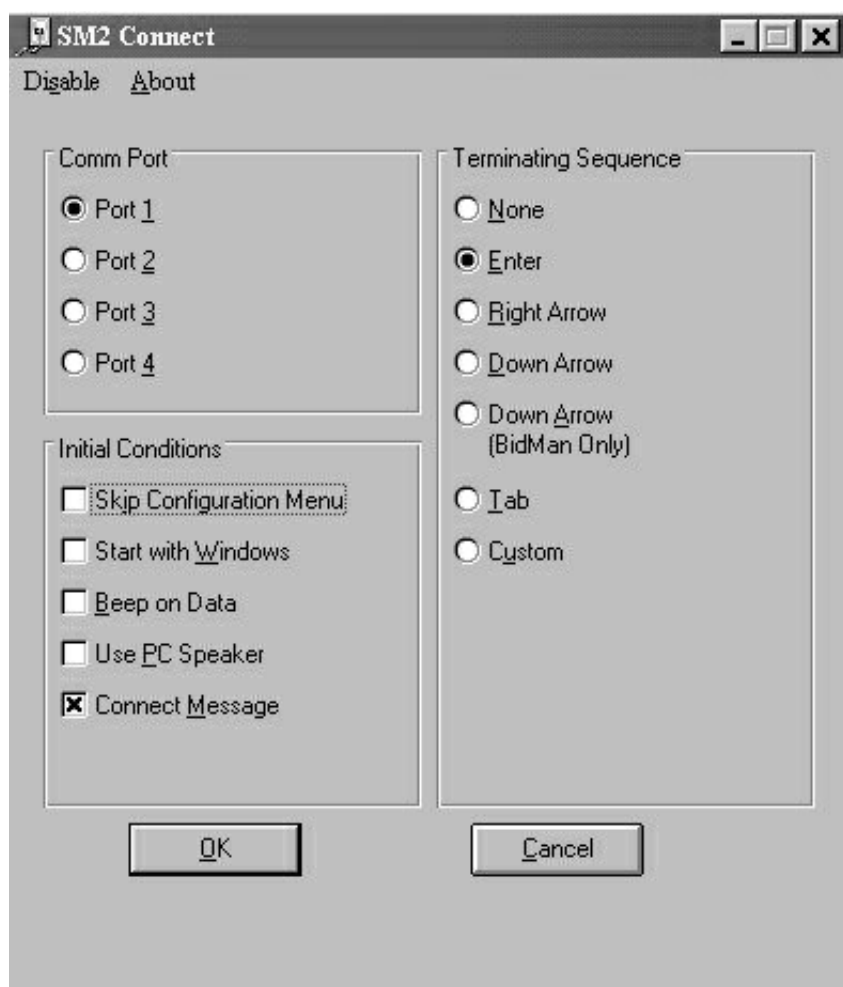
(continued)

7. **COMM PORT** — The first section of the Configuration Menu, **Comm Port**, selects the *Communications Port* that the *SMII* will use to interface with your PC. **Port 1** is the recommended port and is therefore the default. If Port 1 is already being used by another device on your computer, however, check to see which Port number is available. To do this, check your computer's **Device Manager** files by selecting **Start: Settings: Control Panel**. Double click on the **System** icon, select **Device Manager** and then double-click on **Ports** (COM & LPT). This will tell you what Communications Port number (e.g., COM1, COM2) is available on your computer and therefore, which Port number to select in the **Comm Port** menu above (e.g., if it reads COM2, you must check **Port 2**). *Note: The above steps may vary according to your version of Windows.*

8. **INITIAL CONDITIONS** — The next section of the Configuration Menu, **Initial Conditions**, lets you choose various software configuration settings below:

- Click on "Skip Configuration Menu" if you don't want to see this menu appear upon startup.

- Click on "Start with Windows" if you want the interface program to automatically start when you turn your computer on (i.e., so that you don't need to reactivate it every time; see "**Reactivating the Interface Program**" on page 11).

- Click on "Beep on Data" if you want your *SMII* to register a beep when it transfers data to your PC spreadsheet program. **NOTE**: The source of the beep is the Multimedia Speaker System. If you do not have Multimedia speakers, choose select "Use PC Speaker" instead. This choice will result in a tone on Windows 95/98, or a click on Windows NT/2000.

(continued)

9. **TERMINATING SEQUENCE** — The selections on the right side of the Configuration Menu have to do with how your data is transferred to your spreadsheet or other software program. Currently, it is defaulted to "**Enter**," which commands your cursor to enter transferred data in a column of cells (down) or in a row (to the right) in your spreadsheet, depending on your program's setup. You can change the way your cursor inputs, however, by selecting the following settings:

- None—Does not move your cursor to the next cell (this allows you to insert text, if desired).

- Right Arrow—moves your cursor to the right cell, in a row.

- Down Arrow—moves your cursor down to the cell below, in a column.

- Down Arrow (*BidMan Pro Only*)—if you are using the *Bid-Man Pro* software program, you need to select this setting. Moves your cursor down.

- Tab—moves cursor in the direction preprogrammed by your software.

- Custom—Lets you add a fixed character (letters or numbers) to the end of each measurement (e.g., square feet, etc.). A box labeled "Custom String" will appear under Custom. Enter the desired character here.

---

10. When finished with your Configuration Menu selections, click on the **OK** button. This will minimize or move the Menu to the bottom of your screen.

11. Remove the CD-ROM.

12. You are ready to begin. Proceed to **Step 3** for instructions on sending *Scale Master® II* values to your spreadsheet application program.

Windows 3.1 Installation

1. Select Run from the Start menu, and click Browse. Browse to win31\setup.exe on the CD, then double-click on it.

2. Follow the instructions. See page 8, steps 7-12 for Configuration Settings.

DOS Installation

You must be in native DOS mode (not a DOS window in Windows) for the installation and the driver to work properly.

1. If your computer starts with Windows, you will need to restart in DOS mode. Go to Start, then Shut Down. Select "Restart in MS-DOS Mode" then and click **OK**.

2. After your computer has rebooted in DOS mode, change the Directory of your CD-ROM drive by typing **cd d**:

3. Next type **cd dos** to change to the Directory with the DOS Install file. You should see a prompt similar to the following on your screen: **D:\DOS>**

4. Now proceed with the installation by typing **sm2pc.bat** and follow the on-screen instructions.

5. See page 8, steps 7-12 for Configuration Settings.

NOTE for AOL Users: If you plan to install this program in DOS instead of Windows, please note that your AOL may periodically lock up. In order to avoid this problem, make sure the "Start with Windows" box in the Configuration Menu is not selected (page 8, step 8).

Reactivating SM2 CONNECTthe Interface Program

Your *Scale Master® II* PC Interface program must be *reactivated or opened* after you turn your computer off and on in order to activate the interface capability. ***If you do not open the program, your SMII will not be able to communicate with your spreadsheet or estimating program.***

You may instruct the PC Interface program to start up automatically with Windows by selecting the "Start with Windows" setting in the Configuration Menu. See Windows (95/98/NT/2000) Installation, page 8, step 8.

Or, simply open the PC Interface program by selecting the **Start** menu icon at the bottom left of your PC screen, then **Programs**, then the **SM2 Connect folder**, and double-clicking the **SM2 Connect icon** to start the driver.

STEP 3 — SENDING VALUES TO YOUR SPREADSHEET APPLICATION PROGRAM

The PC interface program sends a *single value* (the main value on your display) measured by your *Scale Master® II* to your word-processing program, a selected cell in your spreadsheet or estimating software program, or any other Windows application that accepts keyboard entry. The Interface program sends linear distances, areas, volumes or counts directly to your PC.

To send a value to your PC, use the **[SET]** key located to the left of the *Scale Master® II*'s display and follow the instructions below:

1. Make sure your *Scale Master® II* digital plan measure has the interface cable securely connected to your *SMII* and to your PC's hard drive serial port.

2. Turn the *Scale Master® II* on.

3. Open the application program (e.g., Excel spreadsheet or estimating software program) you wish to send values to.

4. **IMPORTANT**: Insert your mouse's cursor or click on in the desired cell where you'd like to start. This is where the *SMII* will send the first measurement.

5. Select the desired measuring mode and scale on your *Scale Master® II* by pressing the **[MODE]** and **[SCALE]** keys. Press the red **[RESET]** key to make sure the unit is cleared.

6. *You're ready to begin rolling and transferring values!* Begin rolling a distance on your blueprint (be sure to hold the unit upright while rolling).

7. When finished rolling, press the **[SET]** key on your *Scale Master® II* to send the value on the display to the selected cell in your spreadsheet application program. *Note: If measuring in feet and inches, the value is automatically converted from feet-inch format to decimal feet.*

8. Once you see the value transferred to the spreadsheet, press the red **[RESET]** key on the *Scale Master® II* to reset the unit and continue measuring by repeating the above steps.

    NOTE: *The next value will automatically move to the next cell directly below the first cell.*

Sending Areas or Volumes

Sending Areas

1. Open your spreadsheet or other spreadsheet application program and click on a desired cell.
2. Roll the first dimension with your *Scale Master* ® *II* and press **[LENGTH]**. This will store the value as length.

    Note: The *SMII* will reset to zero after you press Length or Width.
3. Roll the second dimension and press **[WIDTH]**.
4. Press **[SQ/CU] [SET]**. This will calculate the area from the stored length and width values and send it to your PC. Note that you must press the **[SQ/CU]** key first to find the area, then press **[SET]** to send the value to your PC.

Sending Volumes

1. Open your application program and click on a desired cell.
2. Roll the first dimension and press **[LENGTH].**
3. Roll the second dimension and press **[WIDTH]**.
4. To set a height, roll a third dimension and press **[RCL] [SET] [SQ/CU]**. The measurement will display and the units of measurement will be flashing.
5. Press **[SET]** to store as height.

    Note: Once you set your height in Steps 4 & 5, you do not need to enter it again unless you want to change it, as the height is semi-permanently stored.
6. Press **[SQ/CU]** to calculate the area. Press the **[SQ/CU]** key again to find the volume. Press **[SET]** to send the value to your PC. Press **[SQ/CU]** a third time to display the value stored as height.

Clearing Values in Registers

Values stored in Length, Width and Height are semi-permanently stored, meaning they will remain stored even after a **[RESET]**, but will clear if the *SMII* is turned off.

To clear values without turning the SMII off:

1. Clear stored length: **press [RESET] and [LENGTH] together**

2. Clear stored width: **press [RESET] and [WIDTH] together**

3. Clear stored height: **press [RCL] [SET] then RESET] and [SQ/CU] together**

Sending Counts

1. Press the **[COUNT]** key to count the value.

2. Press **[RCL] [COUNT]** to move this counted value to the main display of your *SMII*.

3. Press **[SET]** to send this count to your PC.

4. To reset the count, press **[RESET] and [COUNT] at the same time.**

Sending Values Stored in Memory

The Memory function allows you to add multiple values and send them to your PC. To send rolled values:

1. Roll the first value. Press **[SET] [M+]** to send this value to the computer and store it in memory. The display will reset to "0."

2. Roll the next value. Press **[SET] [M+]**. This value is added to your previous value in memory and sent to the computer.

3. You can continue to add values. To send the total value stored in memory, press **[RCL] [M+]** to recall the total on the main display. Then press **[SET]** to send the value.

    NOTE: *You cannot add dimensioned (rolled) and non-dimensioned (counted) values together.*

PC INTERFACE COMMANDS

[SET] — Send Key

Sends a rolled distance or calculated value (e.g., area/volume or count) to a cell in your PC's application (e.g., spreadsheet or estimating) program. Only the numerical value on the main display will be sent (i.e., without display legends or annunciators). Also, this value can only be displayed in decimal feet (versus feet and inches shown on your *Scale Master® II* display).

[SQ/CU] [SET]

Sends a calculated area or volume (if height was previously stored) and sends it to your PC.

[RCL] [SET] [SQ/CU] [SET]

Enters and stores the rolled value as height.

[COUNT]

Counts when pressed; a beep will register each counted value.

[RCL] [COUNT] [SET]

After **[COUNT]** has been pressed, sends the value to the main display and transfers it to your PC.

[RESET]

Clears all non-permanent registers.

[RESET] and [SUB] together

Full Reset. Clears all semi-permanent registers.

TROUBLESHOOTING

Q: Why won't my *SMII* send values to my computer?

A: Check or adjust any of the following:

1. Check the interface program to make sure it is turned on or activated (open the Interface program by selecting **Start: Programs: SM2 Connect: SM2 Connect** and click **OK**). The SM2 Connect menu will minimize, or appear at the bottom menu of your computer screen.

2. Check that the interface cable is firmly connected to the *SMII* and to the computer.

3. Check the *SMII* to insure that it is plugged into the right Port number for your computer, and that this Port number matches the **Comm Port** listed in the Interface program's **Configuration Menu**. (See page 8, step 7).

4. Press the **[SET]** key several times to cancel any override.

5. Restart your computer, then restart the interface program and your application.

   Also, see the next section, **Windows 95/98 HyperTerminal.**

IF YOU STILL CANNOT GET THE SMII TO SEND VALUES, CALL TECHNICAL SUPPORT AT 1-775-885-4975.

WINDOWS 95/98 HYPERTERMINAL

1. If the *Scale Master® II* is not sending values to your bid program or your spreadsheet, you may need to check your Communications Ports (COM ports) by using HyperTerminal. HyperTerminal is a program in Win95 and Win98 that checks to see if the Communications Ports are sending to Windows, without the use of any software.

2. To access HyperTerminal, click the "Start" icon at the bottom left of your screen. Then go to Programs. Next select Accessories. For those who have Windows 98, you will now go to Communications. Finally, select Hyper-Terminal. Open this window and find the file Hypertrm.exe or HYPERTRM… and double-click on it.

3. This brings up a window, which is titled, "Connection Description." In the space provided, you will need to name your New Connection. Simply type "SM2." Then click OK.

4. Next, the window titled, "Phone Number" will open. Go down to where it says, "Connect Using" and click on the down arrow on the far right.

5. You will then see several Communications Port options. Generally your modem (if you have one) will be listed first. Following your modem will be several "Direct To" options. Choose one of these and click OK. It is best to choose the first one and go down the list, as you will need to test them all separately. (If the one you select has a message that reads, "Unable to open COM*," then go to the next one.)

6. Once you have selected a COM Port that is available, a window will open. You will need to make certain that you change the settings to the proper configuration. You can change the settings by clicking on the down arrow to the right of each separate setting.

The settings should read:

Bits per second	*9600*
Data bits	*8*
Parity	*None*
Stop bits	*1*
Flow control	*None*

7. After changing the settings click OK.

8. Once you find a Communications Port that is active (does not have an error message and you see a blank screen), you should turn on your *Scale Master® II*, roll a measurement, and press **[SET]** to send it to Hyper-Terminal. Your *SMII* should send the value to Hyper-Terminal.

9. If your *Scale Master® II* does not send the value to the bid program or spreadsheet that you are using, try a different Communications Port than the one you are currently using. (See step 10.)

10. Go to File in the upper left part of the window titled, "*SM2* – HyperTerminal." Click on, "New Connection." A message will come up, "You are currently connected." Are you sure you want to disconnect now?" Click Yes. After which, another message will come up, "Do you want to save session SM2?" Click No.

11. Redo steps 2-7 (changing to a new COM port at Step 4) until you have tried all the ports listed under "Connect Using."

12. If you have no success in sending a value to Hyper-Terminal on any of the COM ports, you have a Windows Communications Port problem. This must be configured properly by a Windows expert.

LICENSE AND LIMITED WARRANTY

PLEASE READ THIS LICENSE CAREFULLY BEFORE USING THIS SOFTWARE. BY USING THIS SOFTWARE, YOU AGREE TO BECOME BOUND BY THE TERMS OF THIS LICENSE. IF YOU DO NOT AGREE TO THE TERMS OF THIS LICENSE, DO NOT USE THIS SOFTWARE AND PROMPTLY RETURN IT TO THE PLACE WHERE YOU OBTAINED IT FOR A FULL REFUND.

The enclosed computer program(s) ("Software") is licensed, not sold, to you by Calculated Industries, Inc., for use only under the terms of this License, and Calculated reserves any rights not expressly granted to you. You own the media on which the Software is recorded or fixed, but Calculated and its licensors retain ownership of the Software itself.

1. License. This License allows you to:

a) Use one copy of the Software on a single computer at a time. To "use" the Software means that the Software is either loaded in the temporary memory (i.e., RAM) of a computer or installed on the permanent memory of a computer (i.e., hard disk. etc.). You may install the Software on a common storage device which is accessible by multiple computers, provided that if more computers have access to the common storage device than the number of licensed copies of the Software, you must have some software mechanism which locks-out any concurrent users in excess of the number of licensed copies of the Software (an additional license is not needed for the one copy of Software installed on the common storage device accessed by multiple computers).

b) Make one copy of the Software in machine-readable form solely for backup purposes. Additionally, only so long as the Software is installed only on the permanent memory of a single desktop computer which is not accessible by multiple computers and that single desktop computer is used by one user for at least 80% of the time the computer is in use, that same user may also make a copy of the Software to use on a portable or home computer which is primarily used by such user. As an express condition of this License, you must reproduce on each copy any copyright notice or other proprietary notice that is on the original copy supplied by Calculated.

c) Permanently transfer all your rights under this License to another party by providing to such party all copies of the Software licensed under this License together with a copy of this License and the accompanying written materials, provided that the other party reads and agrees to accept the terms and conditions of this License.

d) Notwithstanding any other terms in this License, if the Software is licensed as an upgrade or update, then you may only use the Software to replace previously validly licensed versions of the same software. You agree that the upgrade or update does not constitute the granting of a second license to the Software (i.e., you may not use the upgrade or update in addition to the software it is replacing, nor may you transfer the software which is being replaced to a third party).

2. Restrictions. The Software contains trade secrets in its human perceivable form and to protect them, you may not REVERSE ENGINEER, DECOMPILE, DISASSEMBLE OR OTHERWISE REDUCE THE SOFTWARE TO ANY HUMAN PERCEIVABLE FORM. YOU MAY NOT MODIFY, ADAPT, TRANSLATE, RENT, LEASE, LOAN OR CREATE DERIVATIVE WORKS BASED UPON THE SOFTWARE OR ANY PART THEREOF.

3. Dual Media. Even if this Calculated product includes the Software on more than one medium (e.g., on both a CD and on magnetic disks; or on both 3.5 inch disks and 5.25 inch disks), you are only licensed to use one copy of the Software as described in Section 1 (a). You may not use the Software stored in the other medium on another computer or common storage device, nor may you rent, lease, loan or transfer it to another user except as part of a transfer pursuant to Section 1 (c).

4. Termination. This License is effective until terminated. This License will terminate immediately without notice from Calculated or judicial resolution if you fail to comply with any provision of this License. Upon such termination you must destroy the Software, all accompanying written materials and all copies thereof, and Sections 6, 7 and 8 will survive any termination.

5. Export Law Assurances. You agree that neither the Software nor any direct product thereof is being or will be shipped, transferred or re-exported, directly or indirectly, into any country prohibited by the United States Export Administration Act and the regulations thereunder or will be used for any purpose prohibited by the Act.

6. Limited Warranty. Calculated warrants for a period of ninety (90) days from your date of purchase that (i) the media on which the Software is recorded will be free from defects in materials and workmanship under normal use, and (ii) the Software as provided by Calculated will substantially conform to Calculated's published specifications for the Software. Calculated's entire liability and your sole and exclusive remedy for any breach of the foregoing limited warranty will be, at Calculated's option, replacement of the media, refund of the purchase price or repair or replacement of the Software.

THIS LIMITED WARRANTY IS THE ONLY WARRANTY PROVIDED BY CALCULATED. CALCULATED AND ITS LICENSORS EXPRESSLY DISCLAIM ALL OTHER WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WITH REGARD TO THE SOFTWARE AND ACCOMPANYING WRITTEN MATERIALS. BECAUSE SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF IMPLIED WARRANTIES, THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

7. Limitation of Remedies and Damages. In no event will Calculated, its parent or subsidiaries or any of the (censors, directors, officers, employees or affiliates of any of the foregoing be liable to you for any consequential, incidental, indirect or special damages whatsoever (including, without limitation, damages for loss of business profits, business interruption, loss of business information and the like), whether foreseeable or unforeseeable, arising out of the use of or inability to use the Software or accompanying written materials, regardless of the basis of the claim and even if Calculated or a Calculated representative has been advised of the possibility of such damage. Calculated's liability to you for direct damages for any cause whatsoever, and regardless of the form of the action, will be limited to the greater of $200 or the money paid for the Software that caused the damages.

THIS LIMITATION WILL NOT APPLY IN CASE OF PERSONAL INJURY ONLY WHERE AND TO THE EXTENT THAT APPLICABLE LAW REQUIRES SUCH LIABILITY. BECAUSE SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF LIABILITY FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES, THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

8. General. This License will be construed under the laws of the State of Nevada, except for that body of law dealing with conflicts of law. If any provision of this License shall be held by a court of competent jurisdiction to be contrary to law, that provision will be enforced to the maximum extent permissible, and the remaining provisions of this License will remain in full force and effect. If the software is supplied to the United States Government the Software is classified as "RESTRICTED COMPUTER SOFTWARE" as defined in clause 52.227-19 of the FAR. The United States Government's rights to the Software are as provided in clause 52.227-19 of the FAR.

LEGAL NOTES

LOOKING FOR NEW IDEAS

Calculated Industries, a leading manufacturer of special function calculators and digital measuring instruments, is always looking for new product ideas in these areas.

If you have one, or if you have any suggestions for improvements to this product or its User's Guide, please call or write or e-mail our Product Development Department. Thank you.

Calculated Industries, Inc.
4840 Hytech Drive
Carson City, NV 89706 U.S.A.
775-885-4975 • Fax: 775-885-4949
E-mail: techsup@calculated.com
www.calculated.com

6215UGa